

Hazardous area drum and base drum heaters

These Isopad drum and base drum heaters are used to provide medium flow and process temperature in hazardous environments. The special design including a self-regulating heating cable embedded in a solid metal housing ensures the maximum in safety at operating conditions. Using this design an additional temperature limiter is not necessary.

These heaters are designed for standard drum sizes of 200 liter and are fully component approved according to the latest standards of ATEX.

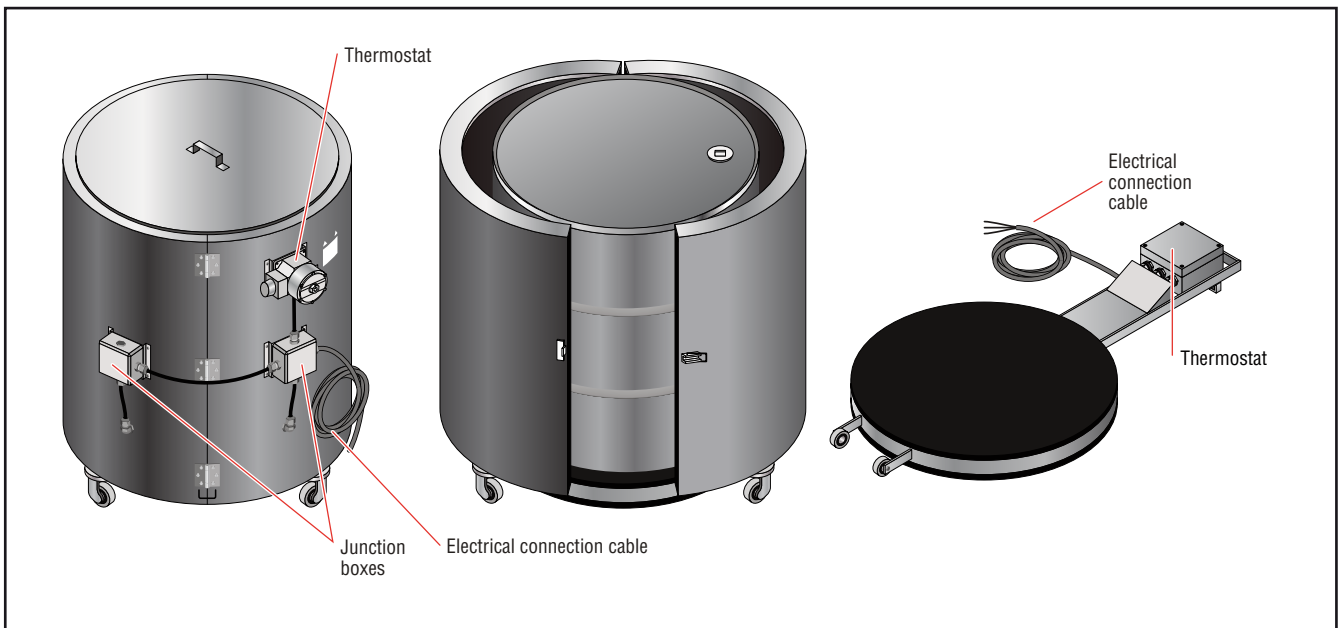
Drum Heater

The drum heater is made out of a two-pieced metal housing to be opened and closed via hinges and fasteners standing on conductive castors. The solid design ensures stable operation even on unlevel surfaces. The metal housing carries the heating cable and evenly distributes the temperature to the drum. A mechanical thermostat regulates the operating temperature. Each drum heater includes a lid. To reduce heat loss at top it is recommended to use our insulated lid.

Base Drum Heater


The base drum heater is a perfect addition to the the drum heater to prevent heat loss from below. A solid aluminium plate carries the heating cable and evenly distributes the temperature to the drum. An electro-mechanical thermostat regulates the operating temperature. The framework is made out of solid steel and comes with castors for easy transportation.

For ordinary area drum heater systems see our IDR, IBDR/IDR-IBDR-CON datasheet.



	FIDR-SR drum heater	FIBDR-SR base drum heater
Area Specifications		
Area classification	Hazardous area	Hazardous area
Zone	Gas 1,2 Dust 21, 22	Gas 1,2 Dust 21, 22
Temperature class	T2, T4, T6	T2, T4, T6
Ingress protection	IP6X (IP65)	IP6X (IP65)
Electrical protection class	Class I	Class I
Ambient temperature range	-40 to +50°C	-40 to +50°C

Certifications

Approvals	Component approval 	Component approval
Number of certificate	0598	
Marking	Ex II 2 GD Ex de IIC T2 ... T6 Ex tD A21 IP6X T240°C ... T80°C	Ex II 2 GD Ex e iam IIC T2 ... T6 Ex tD A21 IP6X T240°C ... T80°C
Norms	EN, IEC Standard	EN, IEC Standard

Standard Manufacturing Sizes

Length	–	1100 mm including castors
Height	990 mm including castors	75 mm heating surface
Inner diameter	650 mm	–
Outer diameter	770 mm	546 mm
Other dimensions on request		

Heater Construction

Type	Self-regulating heating cable	Self-regulating heating cable
Carrier	Sheet steel	Aluminium plate, anodised black
Material of thermal insulation	Glass-fiber	Mineral-fiber
Thickness	50 mm	50 mm
Outer protection	Sheet steel	Sheet steel
Paint	Matt black heat resistant and structured blue paint	Structured blue paint
Fixation and closure type	Quick-snap fastener	–

Connection

Junction box (type)	STAHL Series 8118	–
Ingress protection	IP66	–
Maximum ambient temperature	–50 to +55°C	–
Maximum connecting cross section	4 mm ²	–
Terminals	8	–
Glands	4 x M25	–
Housing material	Polyester glass-fiber reinforced	–
Connection lead length	2 m	2 m
Lead cross section	4 mm ²	2.5 mm ²
Maximum operating temperature	180°C	180°C
Connection lead insulation material	Silicone	Silicone

Temperature Control

Thermostat type	ETS-05-L2-E (P)	RAYSTAT-EX-03
Sensor type	Pt100 3-wire	Pt100 2-wire
Controller range	0 to +199°C	0 to +499°C
Ingress protection	IP66	IP66
Maximum ambient temperature	–40 to +60°C	–50 to +55°C
Housing material	Polyester glass-fiber reinforced	Polyester glass-fiber reinforced

Technical Data

Frequency	50-60 Hz	50-60 Hz
Maximum operating voltage	254 Vac (~1ph)	254 Vac (~1ph)
Nominal operating voltage	Depending on design	Depending on design
Nominal power	Depending on design	Depending on design
Maximum operating temperature	65 to 120°C (depending on heating cable type and temperature class)	65 to 120°C (depending on heating cable type and temperature class)

Options

Design with other housing materials (e.g. stainless steel). Additional insulated lid for reduction of heat loss.
For drum heaters: alternative junction box type JBU-100-L-E with signal lamp for operating status (ON/OFF)

Ordering Information

Part number	For standard sizes (Ltr)	Height ⁽¹⁾ (mm)	Inner diameter ⁽¹⁾ (ID) (mm)	Outer diameter ⁽¹⁾ (OD) (mm)	Nominal power ⁽²⁾ (W)	Nominal voltage (Vac)	Weight (kg)
Drum heaters							
1235-08230101	200	990	650	770	3930	230	60
1235-08230102	200	990	650	770	3990	230	60
1235-08230103	200	990	650	770	1810	230	60
Base drum heaters							
1235-08240101	200	78	–	546	1150	230	20
1235-08240102	200	78	–	546	1170	230	20
1235-08240103	200	78	–	546	530	230	20
Insulated lid							
1235-08021000	200	85	790	798	–	–	20

⁽¹⁾ Tolerances according to DIN ISO 2768 c

⁽²⁾ Tolerances $\pm 10\%$ at 230 Vac and $+10^\circ\text{C}$